

To: dcarr@dnr.IN.gov[dcarr@dnr.IN.gov]
From: Weaver, Kerryann
Sent: Thur 7/7/2016 4:31:58 PM
Subject: Surface coal mining articles/studies
[environ Illinois streams study 2011.pdf](#)
[Origin and Influence of Coal Mine Drainage on Streams of the United States.pdf](#)
[Surface Coal Mining Effects on GW Recharge.pdf](#)
[Bonta_0692_1.pdf](#)
[Pond_2008.pdf](#)
[Bonta_0692_2.pdf](#)
[Bonta_0800.pdf](#)
[Bonta_0803.pdf](#)
[Bonta_0897.pdf](#)

David,

Here are some studies I came across. These three below seem to support that stream restoration is technologically feasible and attainable in the post mining landscape. Not really what you're looking for but they may have citations within them that may prove useful.

Williard, Karl, B. Borries, T. Straub, D. Rosenboom, C. Nielson, and V. Kelly. 2013. Stream restoration—long term performance: a reassessment. Final report for Office of Surface Mining Cooperative Agreement S11AC20024 AS.

Nawrot, J., W. G. O'Leary, and P. Malone. 2009. Illinois stream restoration—opportunities for habitat enhancement: policy, principles, and practices. Pages 183-195 *in* Proceedings of the 2009 Geomorphic Reclamation and Natural Stream Design at Coal Mines: A Technical Interactive Forum, 28-30 April 2009. Bristol, VA, 226 pp.

ENVIRON International Corporation. September 10, 2010. Report for Fish and Macroinvertebrate Sampling for 2010 Bioassessment Monitoring of West Fork Busseron Creek. Prepared for Peabody Energy, Evansville, Indiana.

Overall, really not a lot of studies in the area of concern. Attached some articles from Ohio as well.

Here are some mountaintop coal mining articles – you may have these citations but thought I'd share anyway...

Pond, G.J., M.E. Passmore, F.A. Borsuk, L. Reynolds, and C.J. Rose. 2008..Downstream effects of mountaintop coal mining: comparing biological conditions using family- and genus-level macroinvertebrate bioassessment tools. J. N. Am. Benthol. Soc., 2008, 27(3): 717-737, 720.)

Lindberg. T.T., E.S. Bernhardt, R. Bier, A. Helton, R. Merola, A. Vengosh, and R.T. Di Giulio. 2011. Cumulative impacts of mountaintop mining on an Appalachian watershed. Proceedings of the National Academy of Sciences 108: 20929-20934, 20929.

Hope this is of some use,

Good luck,

Kerryann

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